

WATER BOARD 2017 SPRING TREATMENT SUMMARY FOR MAY 1 – MAY 8, 2017

Prepared by Water Board personnel, May 8, 2017.

During the time period of May 1, to May 8, 2017, the Water Board's contractor, TKT Consulting LLC (TKT), continued to perform 2017 Spring Treatment activities at Leviathan Mine. TKT continued siphoning AMD from Pond 1 to Pond 3 and neutralizing the AMD with the Rotating Cylinder Treatment System (RCTS). TKT discharged neutralized AMD to Leviathan Creek on May 1st, 3rd, 5th, and 7th. 2017 Spring Treatment discharge volumes can be seen in Table 1.

From May 1, to May 5, 2017, U.S. Forest Service (USFS) Road 31052 from U.S. Highway 395 to Leviathan Mine was mostly packed dirt with some small areas of minor rutting. Atlantic Richfield contractors continued performing some road grading activities during the week of May 1 – May 8, 2017. Precipitation on May 6 – May 7, 2017, caused USFS Road 31052 to become slightly soft and muddy. At all times the road remained passable with a four-wheel-drive vehicle. No damage to the roadbed occurred due to travel on the road during this time period. Water Board personnel have been in contact with USFS personnel to keep them apprised of road conditions.

Conditions onsite during this time period remained challenging. Morning temperatures were around freezing and warmed significantly during the day. Some areas of the site remained muddy but most areas were dry prior to the precipitation on May 6th and 7th, which deposited approximately three inches of snow onsite. Most of this snow had melted by May 8th. Patchy snow remains in some areas ranging in depth from several inches to approximately 1 foot. Onsite areas with good sun exposure have mostly melted. Pond 3 remained ice free, TKT continued to use multiple pumps to expedite the mixing process. Ponds 1, 2 North, and 2 South remained ice free. See photos 1-3.



Photo 1 – TKT neutralizing AMD in Pond 3 with the RCTS



Photo 2 – Siphon from Pond 1 into overflow structure to Pond 3 and RCTS



Photo 3 – TKT preparing to discharge neutralized AMD from Pond 3 following snowfall on May 6th

Additional sample results for untreated pond water samples and discharge samples became available and have been added to Tables 2 and 3. TKT continued to collect untreated pond water samples and discharge samples as necessary; analytical results for these samples are still pending and will be added to Tables 2 and 3 when they become available.

The valve that allows AMD to enter Pond 1 remained open and TKT continued to siphon influent from Pond 1 directly to the RCTS for treatment. The stage of water contained in Pond 1, as measured by the USGS, can be seen on Figure 1. Additionally, Water Board personnel have continued on site monitoring of available freeboard in all of the upper ponds (Pond 1, 2 North, and 2 South). The Pond 2 South manual freeboard measurement can be seen in Table 4, and appears to better represent actual site conditions than the USGS measurement viewed online. On May 2, 2017 Water Board personnel escorted and assisted USGS personnel while performing routine maintenance activities at Leviathan Mine. It was discovered that the datalogger collecting stage readings for Pond 1 was reading in error. USGS personnel replaced the bottled nitrogen source used for measuring stage and purged the nitrogen lines. Following this maintenance, the stage reading collected by the USGS datalogger, and displayed online, became more consistent with field measurements. Water Board personnel have made edits to Figure 1 in an attempt to better show conditions onsite over the past few weeks. The maximum depth of pond water over the invert elevation of the overflow pipes from the upper ponds to Pond 3 was approximately $\frac{3}{4}$ ", with the exception of Pond 1 in which the maximum depth of pond water over the invert elevation of the overflow pipe reached approximately 1"-1.5" while Pond 1 was isolated. It is important to understand that at all times overflows from Pond 1, Pond 2 South, and Pond 2 North have

been conveyed directly to Pond 3 for treatment by the RCTS. No untreated or partially treated AMD has been released to Leviathan Creek.

The elevation of water contained in Pond 1, as of May 8, 2017, is slightly above the overflow invert elevation. AMD that overflows from Pond 1 is conveyed directly to the RCTS for treatment as occurs with the current siphon lines. The elevation of water contained in Ponds 2 South is slightly above the overflow invert elevation, as of May 8, 2017. The elevation of water contained in Pond 2 North is immediately below the overflow elevation, as of May 8, 2017. Any overflow from Ponds 2 North and 2 South is conveyed directly to Pond 3. TKT closely monitors the pH at multiple points in Pond 3 and adjusts the RCTS lime dosage to account for any pond overflows that are conveyed into Pond 3 but are not conveyed directly to the RCTS. The combined flow of AMD from the Adit and Pit Underdrain (PUD) as of May 8, 2017 is approximately 117 gallons per minute which is a decrease of approximately 9 gallons per minute from the combined flow observed one week ago.

On April 27, 2017 Atlantic Richfield contractors discovered a small soil slump east of Pond 4. Further investigation by Water Board personnel found additional soil cracking along and below the access road to Pond 3. On May 1, 2017 a geotechnical engineer from AECOM, the Water Board's summer Pond Water Treatment contractor, visited the site. The geotechnical engineer's preliminary recommendations consist of dressing the slope to fill in depressions and cracks to prevent further intrusion of water into the slump as well as the placement of a rock buttress at the base of the slope. In the meantime, the geotechnical engineer indicated that travelling below the slump or along the Pond 3 access road is not unsafe provided the slump and cracking remains relatively unchanged. Water Board staff and their contractor, TKT, will continue with normal work activities, including spring treatment in the Pond 3 area, while visually monitoring the slump and cracking along the Pond 3 access road. Water Board personnel are coordinating with AECOM for the preparation of a proposal to stabilize the slump as well as contacting the Department of General Services to determine available funding for the stabilization. See photos 4-6.

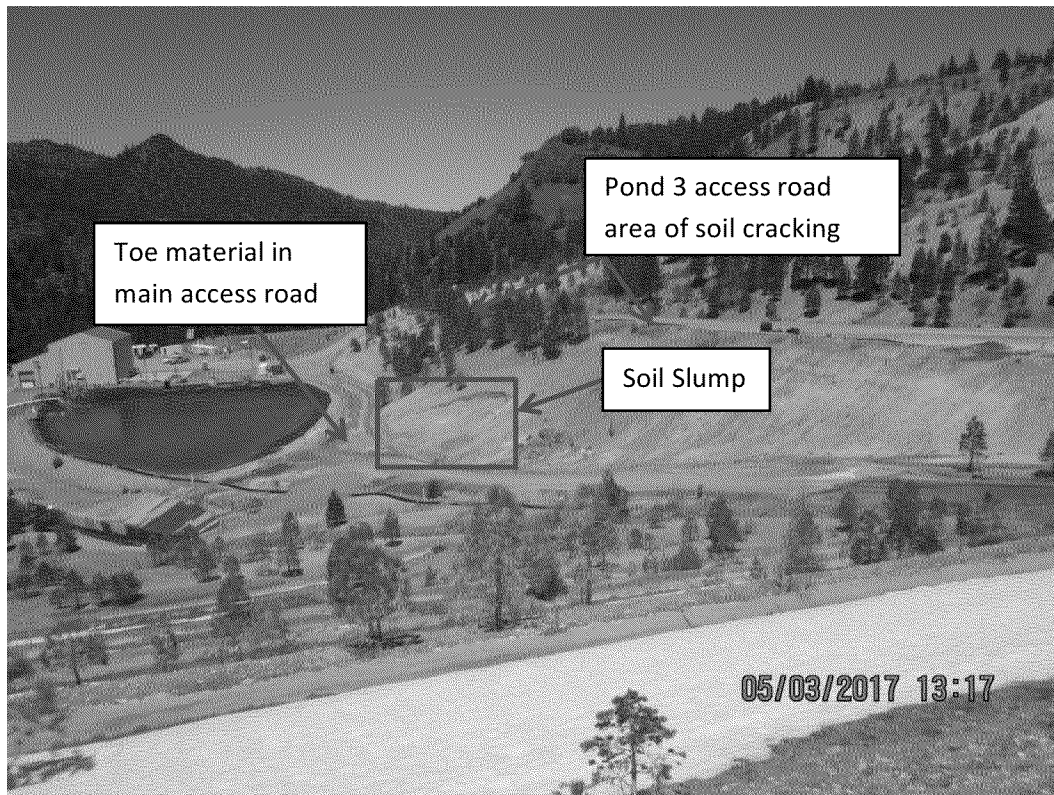


Photo 4 – Soil slump east of Pond 4



Photo 5 – Soil slump east of Pond 4, Pond 4 is to the photographer's left



Photo 5 – Soil cracking along the Pond 3 access road looking northwest, Pond 4 is downhill towards the photographer's left

The Water Board's contractor, TKT, intends to continue AMD neutralization in Pond 3 throughout the upcoming week. Precipitation is not forecast for the upcoming week. Water Board personnel will continue to visit the site throughout the upcoming week and prepare the next 2017 Spring Treatment summary on May 15, 2017.

Table 1
2017 Spring Treatment, Leviathan Mine
Pond 3 Estimated Discharge Volume

Date	Estimated Discharge Volume (gallons)
3/6/2017	380,000
3/13/2017	450,000
3/20/2017	320,000
3/27/2017	630,000
4/3/2017	460,000
4/10/2017	384,000
4/17/2017	420,000
4/24/2017	370,000
5/1/2017	380,000
5/8/2017	443,000
5/15/2017	294,000
5/22/2017	320,000
5/29/2017	333,000
6/5/2017	333,000
6/12/2017	333,000
6/19/2017	418,000
6/26/2017	333,000
7/3/2017	418,000
7/10/2017	333,000
7/17/2017	360,000
7/24/2017	405,000
7/31/2017	410,000
8/7/2017	400,000
8/14/2017	400,000
8/21/2017	400,000
8/28/2017	405,000
9/4/2017	410,000
9/11/2017	400,000
9/18/2017	400,000
9/25/2017	410,000
10/2/2017	410,000
10/9/2017	410,000
10/16/2017	410,000
10/23/2017	410,000
10/30/2017	410,000
11/6/2017	370,000
11/13/2017	370,000
11/20/2017	380,000
11/27/2017	380,000
12/4/2017	380,000

Total Spring Treatment Discharge Volume12,187,250

Table 2
2017 Spring Treatment, Leviathan Mine
Untreated Pond Water Sample Results

SAMPLE ID	Sample Description	SAMPLE DATE	pH	TEMP (°C)	Aluminum		Arsenic		Cadmium		Calcium		Chromium		Cobalt		Copper		Iron		Lead		Magnesium		Manganese		Nickel		Selenium		Sulfate (as SO ₄)		Total Dissolved Solids		Zinc	
					Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ	Result	EQ
USEPA Daily Maximum Discharge Criteria					NP	2	0.15	0.004	NP	0.009	NP	0.31	NP	0.07	NP	0.024	NP	0.024	NP	1	0.905	NP	NP	0.094	0.005	NP	NP	0.094	0.005	NP	NP	NP	NP	NP	NP	0.21
USEPA 4-Day Average Discharge Criteria					NP																															
021P2001	Untreated water in Pond 3	3/04/2017	7.74	L	ND	0.031	0.004	95.3	0.005	90.4	0.075	0.32	D	0.035	ND	0.10	ND	0.041	21.3	0.069	0.332	0.002	362	D	513		0.19									
021P1002	Untreated water in Pond 1	3/04/2017	8.01	D	0.180	0.004	90.4	0.075	0.32	D	0.035	ND	0.10	ND	0.041	21.3	0.069	0.332	0.002	362	D	513		0.19												
021P25004	Untreated water in Pond 2 South	3/7/2017	0.30	ND	0.004	0.009	53.2	0.136	0.550	0.045	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25006	Untreated water in Pond 2 South	3/10/2017	0.9	D	0.007	0.007	38.8	0.170	0.425	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25008	Untreated water in Pond 2 South	3/14/2017	0.9	D	0.750	0.007	38.8	0.180	0.417	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25010	Untreated water in Pond 2 South	3/17/2017	0.9	D	0.05	0.004	23.6	0.087	0.222	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25017	Untreated water in Pond 2 South	3/19/2017	0.9	D	0.045	0.003	17.0	0.064	0.171	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25014	Untreated water in Pond 2 South	3/21/2017	0.9	D	0.027	0.002	14.0	0.045	0.123	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25016	Untreated water in Pond 2 South	3/22/2017	0.9	L	0.077	0.003	35.4	0.058	0.145	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25018	Untreated water in Pond 2 South	3/24/2017	0.9	D	0.032	0.002	13.1	0.047	0.127	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25020	Untreated water in Pond 2 South	3/26/2017	0.9	D	0.050	0.003	18.7	0.059	0.152	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25022	Untreated water in Pond 2 South	3/28/2017	0.9	D	0.080	0.003	36.4	0.071	0.163	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25024	Untreated water in Pond 2 South	3/30/2017	0.9	D	ND	0.004	30.3	0.113	0.259	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25003	Duplicate sample	3/30/2017	0.9	D	ND	0.004	25.9	0.119	0.262	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25027	Untreated water in Pond 2 South	4/1/2017	2.4	D	0.236	0.003	18.8	0.079	0.190	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
011P25029	Untreated water in Pond 2 South	4/3/2017	1.6	D	0.052	0.003	9.8	0.030	0.080	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25032	Untreated water in Pond 2 South	4/5/2017	2.11	D	0.012	ND	4.6	0.017	0.043	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25031	Untreated water in Pond 2 South	4/7/2017	0.9	D	0.046	0.003	8.7	0.035	0.081	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25035	Untreated water in Pond 2 South	4/9/2017	1.24	D	0.044	0.003	9.9	0.035	0.085	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25037	Untreated water in Pond 2 South	4/11/2017	4.64	D	0.020	0.003	7.1	0.023	0.064	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25039	Untreated water in Pond 2 South	4/13/2017	6.00	D	0.001	0.002	14.5	0.044	0.129	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25041	Untreated water in Pond 2 South	4/15/2017	2.49	L	0.080	0.003	17.7	0.053	0.157	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25042	Untreated water in Pond 2 South	4/17/2017	4.41	D	0.243	0.004	26.4	0.180	0.746	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25044	Untreated water in Pond 2 South	4/19/2017	6.76	D	0.030	0.006	37.6	0.173	0.329	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25047	Untreated water in Pond 2 South	4/21/2017	7.86	D	0.009	0.009	45.2	0.212	0.372	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
021P25049	Untreated water in Pond 2 South	4/23/2017	11.0	D	ND	0.004	53.2	0.246	0.487	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035	ND	0.035
030P25052*	Untreated water in Pond 2 South	4/25/2017	7.21																																	
031P25054*	Untreated water in Pond 2 South	4/27/2017	16.51																																	
032P25056*	Untreated water in Pond 2 South	4/29/2017	9.65																																	
013P1058*	Untreated water in Pond 1	3/7/2017	11.06																																	
014P1061*	Untreated water in Pond 1	3/9/2017	13.97																																	
013P1063*	Untreated water in Pond 1	3/9/2017	13.93																																	
035P1065*	Untreated water in Pond 1	5/7/2017	4.80																																	

All values reported in milligrams per liter (mg/L) except pH which are in Standard Units and temperature which are in the units specified above.
All parameters are disclosed except Selenium which is total recoverable.
All results are preliminary.
NP - Not Promulgated
NA - Not Analyzed
* - Analytical results pending
Sample 021P25052* is a duplicate of Sample 021P25052.
Data Qualifiers (DQ) from the Laboratory:
D - Analyte reporting limit exceeded due to sample matrix
L - Lowest available reporting limit for the analytical method used
ND - Not detected at the reporting limit, number following ND represents the reporting limit

Table 3
2017 Spring Treatment, Leviathan Mine
Pond 3 Discharge Sample Results

SAMPLE ID	Sample Description	SAMPLE DATE	pH	TEMP (°C)	Aluminum		Arsenic		Cadmium		Calcium		Chromium		Cobalt		Copper		Iron		Lead		Magnesium		Manganese		Nickel		Selenium		Sulfate (as SO ₄)		Total Dissolved Solids		Zinc																																				
					4		0.04		0.009		NP		0.97		NP		0.026		2		0.156		NP		NP		NP		0.04		0.005		NP		NP		0.21																																		
					0.05		0.004		NP		0.11		NP		0.016		1		0.005		NP		NP		NP		NP		NP		NP		NP		NP		0.21																																		
					Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U	Result	U																															
USEPA Daily Maximum Discharge Criteria																																						6.9 - 9.0																																	
USEPA 4-Day Average Discharge Criteria																																						NP																																	
00250503	Pond 1, Treated discharge	3/4/2017	7.64	6.9	2.16	0.021	ND	0.002	84.3	0.005	ND	0.006	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	0.003	ND	262	261	0.05	0.01																																				
00400505	Pond 1, Treated discharge	3/10/2017	8.36	6.9	6.39	0.021	ND	0.003	36.0	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	1040	1030	0.05	0.01																																				
00500507	Pond 3, Treated discharge	3/15/2017	7.83	6.9	6.24	0.021	ND	0.003	231	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	617	616	0.05	0.01																																				
00700509	Pond 3, Treated discharge	3/16/2017	7.51	6.9	6.31	0.021	ND	0.003	36.0	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	179	178	0.05	0.01																																				
00800503	Pond 3, Treated discharge	3/16/2017	8.55	6.9	7.35	0.021	ND	0.003	228	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	144	143	0.05	0.01																																				
01100503	Pond 3, Treated discharge	3/19/2017	8.64	6.9	6.64	0.021	ND	0.003	157	0.005	ND	0.008	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	409	409	0.05	0.01																																					
01300505	Pond 3, Treated discharge	3/22/2017	8.86	6.9	6.86	0.021	ND	0.003	114	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	149	149	0.05	0.01																																				
01400507	Pond 3, Treated discharge	3/24/2017	8.22	6.9	7.24	0.021	ND	0.003	126	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	228	228	0.05	0.01																																				
01500509	Pond 3, Treated discharge	3/26/2017	8.29	6.9	7.55	0.021	ND	0.003	123	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	306	306	0.05	0.01																																				
01600503	Pond 3, Treated discharge	3/28/2017	8.18	1.4	6.52	0.021	ND	0.003	129	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	104	104	0.05	0.01																																				
01700503	Pond 3, Treated discharge	3/29/2017	8.22	3.5	6.93	0.021	ND	0.003	152	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	466	466	0.05	0.01																																				
01800506	Pond 3, Treated discharge	4/1/2017	8.44	2.07	6.96	0.021	ND	0.003	163	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	431	431	0.05	0.01																																				
01900508	Pond 3, Treated discharge	4/1/2017	8.71	6.55	10.1	0.021	ND	0.003	119	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	314	314	0.05	0.01																																				
02000509	Pond 3, Treated discharge	4/5/2017	8.26	5.95	6.10	0.021	ND	0.003	104	0.005	ND	0.011	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	394	394	0.05	0.01																																				
02100503	Pond 3, Treated discharge, Duplicate Sample	4/7/2017	8.26	5.95	6.11	0.021	ND	0.003	106	0.005	ND	0.005	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	407	417	0.05	0.01																																				
02160502	Pond 3, Treated discharge	4/7/2017	8.27	4.11	6.91	0.021	ND	0.003	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	0.005	ND	348	358	0.05	0.01																																				
02200504	Pond 3, Treated discharge	4/9/2017	8.23	6.9	6.91	0.021	ND	0.003	88.0	0.005	ND	0.020	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	272	272	0.05	0.01																																				
02300506	Pond 3, Treated discharge	4/11/2017	8.40	4.76	6.62	0.021	ND	0.003	103	0.005	ND	0.016	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	339	339	0.05	0.01																																				
02400508	Pond 3, Treated discharge	4/13/2017	8.22	3.19	6.91	0.021	ND	0.003	126	0.005	ND	0.013	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	341	490	0.05	0.01																																				
02500504	Pond 3, Treated discharge	4/15/2017	8.06	3.95	6.91	0.021	ND	0.003	148	0.005	ND	0.005	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	429	429	0.05	0.01																																				
02500506	Pond 3, Treated discharge, Duplicate Sample	4/15/2017	8.08	3.95	6.91	0.021	ND	0.003	146	0.005	ND	0.005	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	417	480	0.05	0.01																																				
02600504	Pond 3, Treated discharge	4/17/2017	8.65	7.26	7.17	0.021	ND	0.003	182	0.005	ND	0.005	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	173	793	0.05	0.01																																				
02700505	Pond 3, Treated discharge	4/19/2017	8.27	5.88	3.40	0.021	ND	0.003	226	0.005	ND	0.006	0.004	0.014	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	375	826	0.05	0.01																																				
02800506	Pond 3, Treated discharge	4/24/2017	8.22	8.05	6.14	0.021	ND	0.003	256	0.005	ND	0.033	0.008	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	744	400	0.05	0.01																																						
02900508	Pond 3, Treated discharge	4/29/2017	8.27	16.91	6.61	0.021	ND	0.003	346	0.005	ND	0.007	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	0.006	ND	1029	1370	0.05	0.01																																				
030005050*	Pond 3, Treated discharge	4/25/2017	8.42	6.69																																																																			
030005061*	Pond 3, Treated discharge, Duplicate Sample	4/25/2017	8.42	6.69																																																																			
031005031*	Pond 3, Treated discharge	4/11/2017	8.54	8.26																																																																			
032005031*	Pond 3, Treated discharge	4/29/2017	8.45	8.02																																																																			
033005031*	Pond 3, Treated discharge	3/1/2017	8.77	9.27																																																																			
034005031*	Pond 3, Treated discharge	3/1/2017	8.76	12.56																																																																			
034005060*	Pond 3, Treated discharge, Duplicate Sample	3/7/2017	8.76	12.56																																																																			
035005061*	Pond 3, Treated discharge	3/5/2017	8.61	12.78																																																																			
036005064*	Pond 3, Treated discharge	3/7/2017	8.82	4.21																																																																			

All values reported in milligrams per liter (mg/L) except pH, which are in Standard Units and temperature which are in the units specified above.

All results are preliminary

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^a - Analytical results pending

Data Qualifiers (DQ) from the Laboratory:

D - Analyte reporting limit increased due to sample matrix

L - Lowest available reporting limit for the analytical method used

ND - Not detected at the reporting limit, number following ND represents the reporting limit

Table 4
2017 Spring Treatment, Leviathan Mine
Manual Remaining Freeboard Measurements

Date	Pond	Remaining Freeboard (ft)	Precipitation	Approximate Combined Adit and PUD flow (gpm)
3/9/2017	Pond 2 South	0.29		
3/20/2017	Pond 2 South	0.35		
3/22/2017	Pond 2 South	0.28		
3/23/2017	Pond 2 South	0.30		
3/27/2017	Pond 2 South	0.32		
3/28/2017	Pond 2 South	0.40		
3/29/2017	Pond 2 South	0.42		
3/30/2017	Pond 2 South	0.40	Yes	80
4/3/2017	Pond 2 South	0.35	No	85
4/4/2017	Pond 2 South	0.36	No	85
4/5/2017	Pond 2 South	0.35	No	94
4/6/2017	Pond 2 South	0.35	No	100
4/7/2017	Pond 2 South	0.14	Yes	107
4/9/2017	Pond 2 South	0.0	No	107
4/10/2017	Pond 2 South	0.0	No	107
4/11/2017	Pond 2 South	0.0	No	106
4/12/2017	Pond 2 South	0.0	No	106
4/13/2017	Pond 2 South	0.0	Yes	112
4/14/2017	Pond 2 South	0.0	No	106
4/17/2017	Pond 2 South	0.0	Yes	110
4/18/2017	Pond 2 South	0.0	Yes	117
4/19/2017	Pond 2 South	0.0	No	121
4/20/2017	Pond 2 South	0.0	No	117
4/21/2017	Pond 2 South	0.0	No	121
4/24/2017	Pond 2 South	0.0	No	121
4/25/2017	Pond 2 South	0.0	No	126
4/26/2017	Pond 2 South	0.0	No	126
4/27/2017	Pond 2 South	0.0	No	126
4/28/2017	Pond 2 South	0.0	No	126
5/1/2017	Pond 2 South	0.0	No	126
5/2/2017	Pond 2 South	0.0	No	126
5/3/2017	Pond 2 South	0.0	No	121
5/4/2017	Pond 2 South	0.0	No	117
5/5/2017	Pond 2 South	0.0	No	117
5/8/2017	Pond 2 South	0.0	No	117

Figure 1 - Leviathan Mine Pond Stage

